M3H/M4H/M5H HISTORY OF MATHEMATICS: EXAMINATION, 2016

Section A: answer 5 questions out of 10; 10 marks each

Write brief historical accounts of *five* of the following:

- Q1. The Platonic solids.
- Q2. The Fundamental Theorem of Arithmetic.
- Q3. The Fundamental Theorem of Algebra.
- Q4. The mathematics of perspective.
- Q5. The mathematics of the rainbow.
- Q6. The formula of spherical excess.
- Q7. The emergence of the decimal system.
- Q8. The mathematics of heat.
- Q9. The Prime Number Theorem.
- Q10. The mathematics of length, area and volume.

Section B: answer 2 questions out of 4; 25 marks each

Write historical accounts of *two* of the following:

Q1. Conics and orbits, with reference to the work of Kepler and Newton.

Q2. The normal distribution, the Central Limit Theorem and the Method of Least Squares.

Q3. The development of linear algebra.

Q4. The development of the real number system \mathbb{R} .

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